



FERO ENGINEERING

ENVIRONMENTAL ENGINEERING & CONSULTING

August 15, 2012

Mr. David Young
California Regional Water Quality Control Board
Los Angeles Region
Site Cleanup Program
320 West 4th Street, Suite 200
Los Angeles, California 90013

First Semi-Annual Groundwater Well Monitoring Report 2012

Continental Heat Treating

10643 Norwalk Boulevard, Santa Fe Springs, California
(Site Id. No. 204GW00, SCP No. 1057)

Dear Mr. Young:

Fero Environmental Engineering, Inc. (Fero) conducted the first required semi-annual groundwater monitoring for 2012 at the subject site on May 3, 2012. The event was coordinated with Cardno ERI, Exxon/Mobil's consultant for their ongoing investigation on the Former Jalk Fee Property ("Jalk Fee") to the north so that the groundwater samples were collected at both sites on the same day. During the sampling event, Fero monitored four onsite wells (MW1-MW4) and Cardno monitored eight wells (MW3, MW4, MW5s, MW5m, MW5d, MW6s, MW6m and MW6d) on the Jalk Fee site.

Prior to pumping any water from the wells, the depths to groundwater in the four wells on the site (MW1-MW4) were gauged using an electronic gauging device, which allowed a monitoring accuracy of 0.01 foot. The depth to groundwater measurements were made from the water surface to a survey mark etched on the northern side of each casing. The wells were resurveyed on December 14, 2011 to include newly installed well MW4 and to check the elevations on the other wells. At least one of the well elevations had to be modified to accommodate onsite construction operations so a new survey was conducted. The new survey elevations were used to determine the elevation of the water table in each well. Gauging data for monitoring events conducted on the site by Fero are summarized in Table 1. The well locations are indicated on Figure 1.

The groundwater elevations were used to determine a generally planar surface which represents the local groundwater table and this surface was superimposed onto the base map (Figure 1). The soil type at the slotted section of MW4 was considerably different than the soils located at the screened depths of the other wells. The soils contained primarily silt and clay at MW4 and it was more sand at the other well locations. The elevation data suggest a very slight mound at MW4. The resulting slope of the groundwater table indicates a flow direction generally to the south under a gradient of approximately 0.0058 ft/ft from Cardno well MW7 to CHT well MW1.

Following gauging and prior to sampling, groundwater monitoring wells MW1-3 were purged of 25 gallons of water, the volume of which was based upon the volume of freestanding water in the wells and the observed stabilization of physical/chemical parameters during purging. The monitoring wells were purged until pH, color, conductivity, and temperature had stabilized. The monitoring wells were purged with a Grundfos variable speed 120-volt AC powered two stage centrifugal Stainless Steel purge pump with discharge through 1/2 inch PVC and Teflon tubing. Groundwater was pumped from the monitoring wells at a rate of approximately 1 gallon per minute. Physical and chemical purge monitoring parameters were measured in the field at the discharge line of the pump. Well purging data is attached hereto as Attachment A.

Subsequent to purging each well, the pump rate was reduced to approximately 100 ml/min whereupon a representative sample of groundwater was collected from the discharge line using 40 ml. glass sample vials. Teflon lined caps were secured tightly onto the 40 ml vials and each was visually inspected to assure that zero headspace had been achieved. The sample vials containing groundwater from each well were immediately placed in an ice chest containing ice and transported for analysis to Enviro-Chem, Inc. in Pomona accompanied by appropriate Chain-of-Custody documentation.

Fero attempted to develop newly installed well MW4 using a heavy 3 inch PVC bailer and the Grundfos pump after sampling the other wells on December 23, 2011. Because of the fine soil profile around the screened section of MW4, fines from the formation filled approximately 10 feet of screened section and the solids density of those fines was too high to allow the bailer to sink closer than about 10 feet from the bottom. Although the pump would drop into the fines, it was not able to pump them. A sample was collected from the clearer water above the mud using the bailer. The well was further developed on January 10, 2012 using a Smeal rig and bottom fill suction bailer. All of the particulates were removed from the well using the bailer and the well was further developed using a Grundfos pump to reduce the fines in the well and formation proximate to the slotted section of the well casing. The well produced water at approximately ¼ gallon per minute. A sample was collected from the Grundfos discharge line near the end of development process, it was analyzed at the lab and the results of the analysis are provided in Table 2.

During the January 10, 2012 sampling event, Fero pumped well MW-4 at a reduced rate of approximately ¼ gallon per minute in an effort to establish a continuous flow condition. Continuous flow was unachievable. Even this reduced pumping rate resulted in a continuously decreasing head in the well. Just before pump cavitation, which was determined with groundwater elevation gauging equipment, groundwater samples were collected as indicated above. Fero was able to remove 15 gallons of water from the well prior to pump cavitation. Samples were taken from the pump discharge into 40 ml glass vials just prior to cavitation which stops flow from the pump. As indicated above, Teflon lined caps were secured tightly onto the 40 ml vials and each was visually inspected to assure that zero headspace had been achieved. The sample vials containing groundwater from the well were immediately placed in an ice chest containing ice and transported at the end of the sampling day for analysis to Enviro-Chem, Inc. in Pomona accompanied by appropriate Chain-of-Custody documentation.

The groundwater samples were analyzed for Volatile Organic Compounds (VOCs) using EPA Method 8260B. Groundwater VOC analytical results from this and from previous events are

summarized in Table 2. Selected organics concentrations are included on all of the attached Figures. Lab analytical reports with associated chain-of-custody documentation are attached hereto as Attachment B.

On June 14, 2012, Fero received well survey data, groundwater elevation data, and water quality data from Cardno ERI (Exxon/Mobil's consultant) for wells MW-6, MW-7 and MW-8 on the Former Exxon/Mobil Jalk Fee Property to the north. The Cardno's data, as provided, are attached hereto. Cardno conducted groundwater sampling on the same day as Fero on May 3, 2012. The resulting data have been incorporated with Fero's data to generate groundwater flow contours and chemical iso-concentration plots for the seven organics with a sufficient number of data points to provide reasonable plots (PCE, TCE, 1,1-DCA, 1,2-DCA, 1,1-DCE, cis 1,2-DCE, and VC). Those plots are attached as Figures 2-8. The groundwater flow direction continues to be in a southerly direction from Exxon/Mobil to the Continental Heat Treat.

The next semi-annual sampling event will likely occur sometime during November 2012. Fero will again coordinate the sampling event with the Cardno ERI, consultants for adjacent Exxon/Mobil in an effort to develop data that can help to explain conditions proximate to the two sites. Should you have any questions regarding the content of this Semi-Annual Groundwater Monitoring Report, please do not hesitate to call the undersigned at (714) 256-2737.

Respectfully,
Fero Environmental Engineering, Inc.

Rick L. Fero, P.E. No. 43927
President



RLF:slf
[758wellmon512]

Table 1
Summary of Groundwater Elevation
Continental Heat Treating
10643 Norwalk Boulevard, Santa Fe Springs, California
(Site Id. No. 204GW00, SCP No. 1057)

Well Number	Date	TOC Elevation (ft MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft MSL)
MW1	3/29/11	137.07	97.16	39.91
	6/15/11		94.50	42.57
	9/20/11		91.81	45.26
	12/23/11	137.08	90.13	46.95
	5/3/12		88.46	<u>48.62</u>
MW2	3/29/11	137.43	96.45	40.98
	6/15/11		93.74	43.69
	9/20/11		91.06	46.37
	12/23/11	138.04	90.05	47.99
	5/3/12		88.43	<u>49.61</u>
MW3	3/29/11	137.71	96.42	41.29
	6/15/11		93.94	43.77
	9/20/11		91.12	46.59
	12/23/11	137.03	89.43	47.60
	5/3/12		87.69	<u>49.34</u>
MW4	12/23/11	137.55	89.43	48.12
	5/3/12		87.69	<u>49.86</u>

Table 2
Summary of Groundwater Analyses
Continental Heat Treating

10643 Norwalk Boulevard, Santa Fe Springs, California
(Site Id. No. 204GW00, SCP No. 1057)

(µg/L)
(DL – 0.5 µg/L)

Well	Date	Ben	Chl	1,4-DCB	1,1-DCA	cis-1,2-DCE	t-1,2-DCE	1,2-DCA	1,1-DCE	HCB	NAP	1,1,2,2-TCA	PCE	1,2,3-TCB	1,2,4-TCB	TCE	TFM	VC
MW1	8/20/10	ND	0.97	ND	17.3	12.2	ND	113	224	ND	ND	ND	184	ND	ND	154	2.79	5.96
	3/29/11	ND	1.02	ND	17.7	600	14.9	ND	184	ND	ND	ND	210	ND	ND	170	5.54	27.8
	6/15/11	ND	1.50	ND	14.1	85.1	2.06	ND	117	ND	ND	ND	228	ND	ND	167	5.51	3.13
	9/23/11	ND	4.20	ND	25.3	118	2.14	ND	191	ND	ND	ND	182	ND	ND	164	13.2	3.50
	12/23/11	ND	3.33	ND	16.3	147	1.92	2.66	85.3	ND	1.90	ND	201	ND	ND	164	6.74	1.51
	5/3/12	ND	6.15	ND	32.2	433	6.80	4.96	191	ND	ND	ND	196	ND	ND	224	13.6	10.0
MW2	8/20/10	ND	1.71	0.78	21.8	59.6	0.76	5.43	126	1.14	2.47	0.92	235	2.72	1.24	178	9.49	0.89
	3/29/11	ND	1.89	ND	22.8	55.1	ND	2.74	161	1.14	ND	ND	214	ND	ND	158	10.0	0.53
	6/15/11	ND	3.07	ND	24.2	85.3	1.53	4.83	149	ND	ND	ND	338	ND	ND	172	13.1	3.09
	9/23/11	ND	5.08	ND	28.1	100	2.09	5.88	177	ND	ND	ND	245	ND	ND	161	21.3	4.01
	12/23/11	ND	3.66	ND	18.3	53.0	0.65	2.69	77.6	NC	ND	ND	252	ND	ND	148	10/6	ND
	5/3/12	ND	8.72	ND	41.9	92.8	0.54	5.21	194	ND	ND	ND	177	ND	ND	163	24.2	ND
MW3	8/20/10	4.50	ND	ND	6.19	38.9	4.13	ND	57.1	1.18	2.43	ND	56.9	3.26	1.29	160	1.22	ND
	3/29/11	3.17	ND	ND	11.7	49.0	4.41	ND	185	ND	ND	ND	82.2	ND	ND	200	4.75	3.78
	6/15/11	1.01	0.91	ND	12.1	41.8	11.2	ND	124	ND	ND	ND	151	ND	ND	149	5.26	1.71
	9/23/11	ND	1.30	ND	14.3	43.6	13.6	ND	146	ND	ND	ND	120	ND	ND	130	7.45	1.32
	12/23/11	ND	1.61	ND	9.57	32.6	8.33	ND	62.1	ND	ND	ND	143	ND	ND	133	5.33	ND
	5/3/12	ND	5.81	ND	25.4	77.8	15.7	0.65	190	ND	ND	ND	137	ND	ND	165	13.3	1.35
MW4	12/23/11	ND	0.54	ND	3.61	172	5.47	ND	16.9	ND	3.05	ND	36.0	ND	ND	21.9	ND	8.20
	1/10/12	ND	ND	ND	5.08	62.2	2.88	ND	25.6	ND	3.22	ND	70.1	ND	ND	47.5	ND	3.51
	5/3/12	ND	2.29	ND	20.9	284	9.63	0.54	148	ND	ND	ND	93.0	ND	ND	90.3	3.51	18.5

DL – detection limit, ND = Not Detected at DL , Ben - Benzene, Chl - Chloroform, DCB - Dichlorobenzene, DCA – Dichloroethane, DCE – Dichlorethane, HCB – Hexachlorobutadiene, NAP – Naphalene, TCA – Tetracholoroethane, PCE – Tetrachloroethene, TCB – Tricholorobenzene, TCE – Trichloroethene, TFM – Trichlorofluoromethane , VC – Vinyl Chloride

Table 2
(cont.)
Summary of Groundwater Analyses

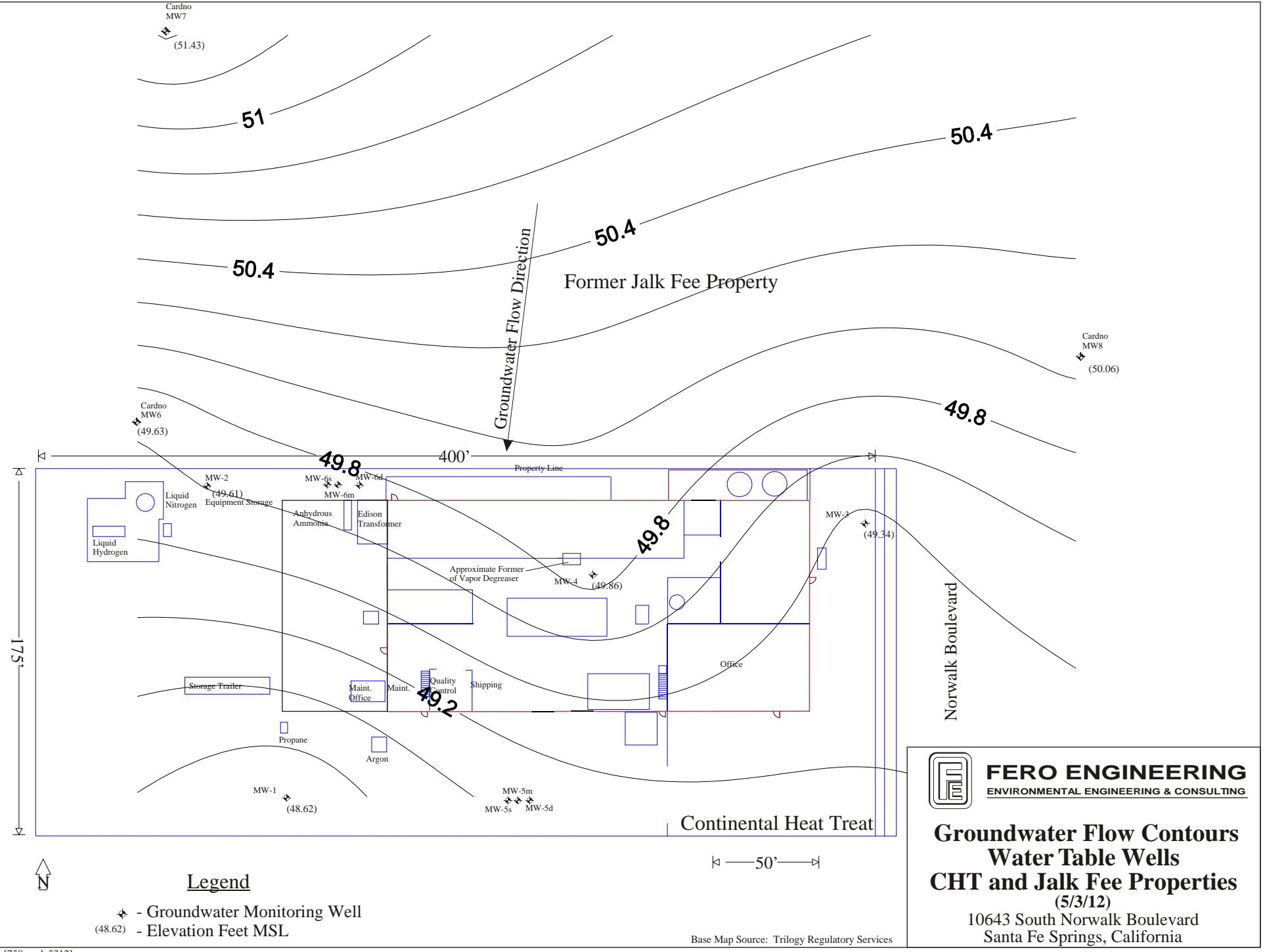
Continental Heat Treating

10643 Norwalk Boulevard, Santa Fe Springs, California
 (Site Id. No. 204GW00, SCP No. 1057)

(μg/L)
 (DL – 0.5 μg/L)

Well	Date	Toluene	Sec-BBEN	Ethyl Ben	IPB	4 IPT	n PBen	1,2,4-TMB	Xylene	111TCA
MW1	12/23/11 5/3/12	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND
MW2	12/23/11 5/3/12	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	1.14
MW3	12/23/11 5/3/12	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND
MW4	12/23/11 1/10/12 5/3/12	1.50 ND ND	3.72 2.71 2.18	1.42 1.61 1.41	7.02 6.04 4.14	0.65 ND ND	7.03 6.30 3.17	ND 1.31 ND	ND 1.20 ND	ND

DL – detection limit, ND = Not Detected at DL , sec-BBEN – sec-Butylbenzene, EthylBen – Ethylbenzene, IPB - Isopropylbenzene, 4 IPT – 4- Isopropyltoluene, n PBen – n-Propylbenzene



	5/12
1,1-DCA	34.5
cis-1,2-DCE	71.9
1,2-DCA	nd
1,1-DCE	135
PCE	191
TCE	139
VC	0.48

	5/12
1,1-DCA	36.4
cis-1,2-DCE	108
1,2-DCA	nd
1,1-DCE	149
PCE	240
TCE	146
VC	0.76

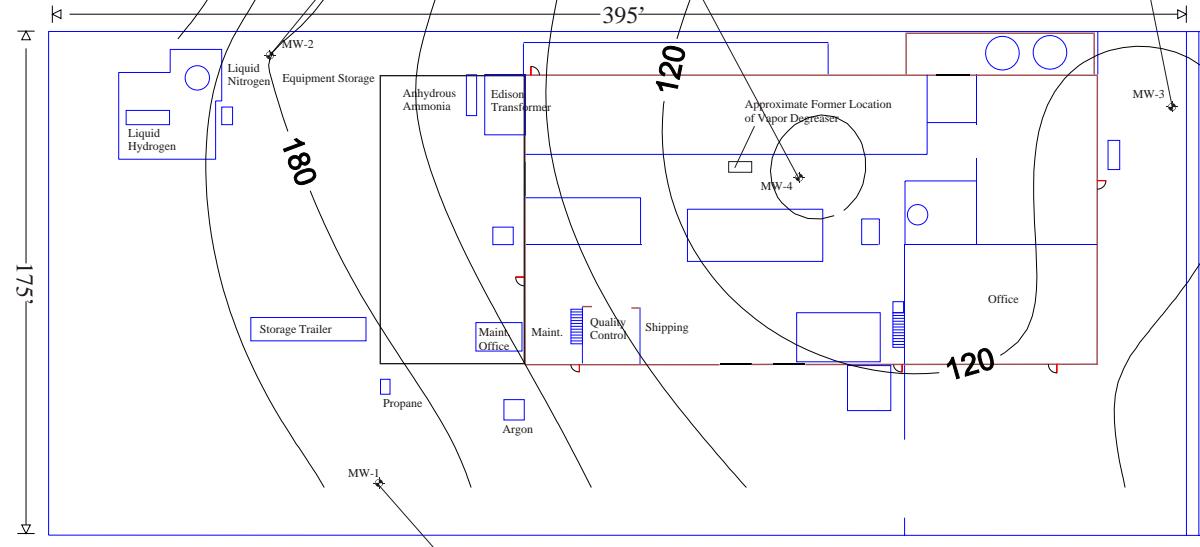
180
180
395°

	5/12
1,1-DCA	41.9
cis-1,2-DCE	92.8
1,2-DCA	5.21
1,1-DCE	194
PCE	177
TCE	163
VC	nd

	5/12
1,1-DCA	20.9
cis-1,2-DCE	284
1,2-DCA	0.54
1,1-DCE	148
PCE	93
TCE	90.3
VC	18.5

	5/12
1,1-DCA	25.4
cis-1,2-DCE	77.8
1,2-DCA	0.65
1,1-DCE	190
PCE	137
TCE	165
VC	1.35

	5/12
1,1-DCA	41.9
cis-1,2-DCE	56.8
1,2-DCA	nd
1,1-DCE	17.2
PCE	nd
TCE	9.11
VC	166



Legend

♦ - Groundwater Monitoring Well

Concentrations in $\mu\text{g/L}$

	5/12
1,1-DCA	32.2
cis-1,2-DCE	433
1,2-DCA	4.96
1,1-DCE	191
PCE	196
TCE	224
VC	10.0

Base Map Source: Trilogy Regulatory Services



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PCE Concentration Isocontours
Continental Heat Treating, Inc.
(5/3/12)

10643 South Norwalk Boulevard
Santa Fe Springs, California

Figure 2

	5/12
1,1-DCA	34.5
cis-1,2-DCE	71.9
1,2-DCA	nd
1,1-DCE	135
PCE	191
TCE	139
VC	0.48

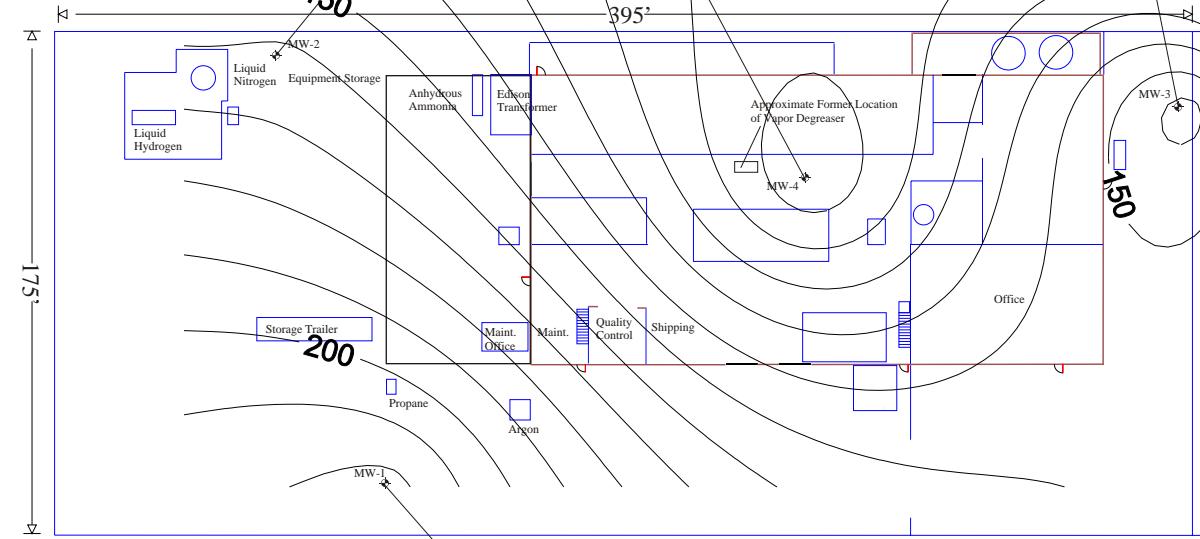
	5/12
1,1-DCA	36.4
cis-1,2-DCE	108
1,2-DCA	nd
1,1-DCE	149
PCE	240
TCE	146
VC	0.76

	5/12
1,1-DCA	41.9
cis-1,2-DCE	92.8
1,2-DCA	5.21
1,1-DCE	194
PCE	177
TCE	163
VC	nd

	5/12
1,1-DCA	20.9
cis-1,2-DCE	284
1,2-DCA	0.54
1,1-DCE	148
PCE	93
TCE	90.3
VC	18.5

	5/12
1,1-DCA	25.4
cis-1,2-DCE	77.8
1,2-DCA	0.65
1,1-DCE	190
PCE	137
TCE	165
VC	1.35

	5/12
1,1-DCA	41.9
cis-1,2-DCE	56.8
1,2-DCA	nd
1,1-DCE	17.2
PCE	nd
TCE	9.11
VC	166



Base Map Source: Trilogy Regulatory Services

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TCE Concentration Isocontours
Continental Heat Treating, Inc.
(5/3/12)

10643 South Norwalk Boulevard
Santa Fe Springs, California

Figure 3

	5/12
1,1-DCA	34.5
cis-1,2-DCE	71.9
1,2-DCA	nd
1,1-DCE	135
PCE	191
TCE	139
VC	0.48

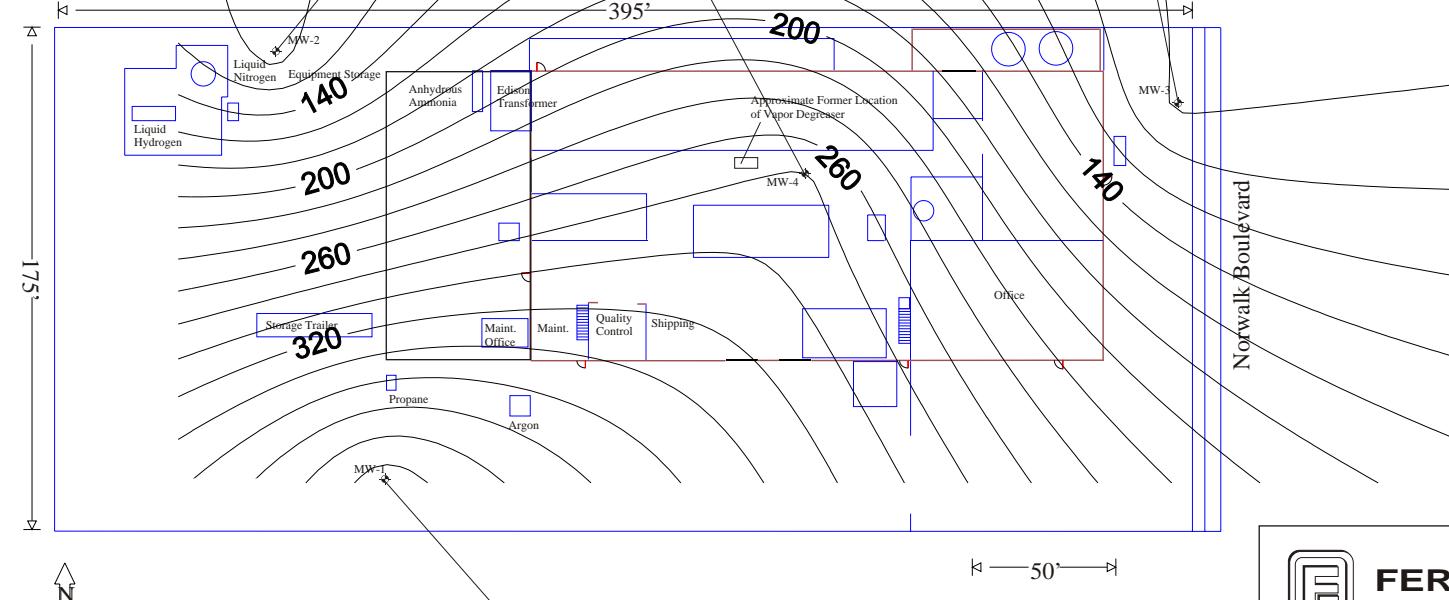
	5/12
1,1-DCA	36.4
cis-1,2-DCE	108
1,2-DCA	nd
1,1-DCE	149
PCE	240
TCE	146
VC	0.76

	5/12
1,1-DCA	41.9
cis-1,2-DCE	92.8
1,2-DCA	5.21
1,1-DCE	194
PCE	177
TCE	163
VC	nd

	5/12
1,1-DCA	10.9
cis-1,2-DCE	284
1,2-DCA	0.54
1,1-DCE	148
PCE	93
TCE	90.3
VC	18.5

	5/12
1,1-DCA	25.4
cis-1,2-DCE	77.8
1,2-DCA	0.65
1,1-DCE	190
PCE	137
TCE	165
VC	1.35

	5/12
1,1-DCA	41.9
cis-1,2-DCE	56.8
1,2-DCA	nd
1,1-DCE	17.2
PCE	nd
TCE	9.11
VC	166



	5/12
1,1-DCA	32.2
cis-1,2-DCE	433
1,2-DCA	4.96
1,1-DCE	191
PCE	196
TCE	224
VC	10.0

Base Map Source: Trilogy Regulatory Services

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cis 1,2-DCE Concentration Isocontours
Continental Heat Treating, Inc.
(5/3/12)
10643 South Norwalk Boulevard
Santa Fe Springs, California

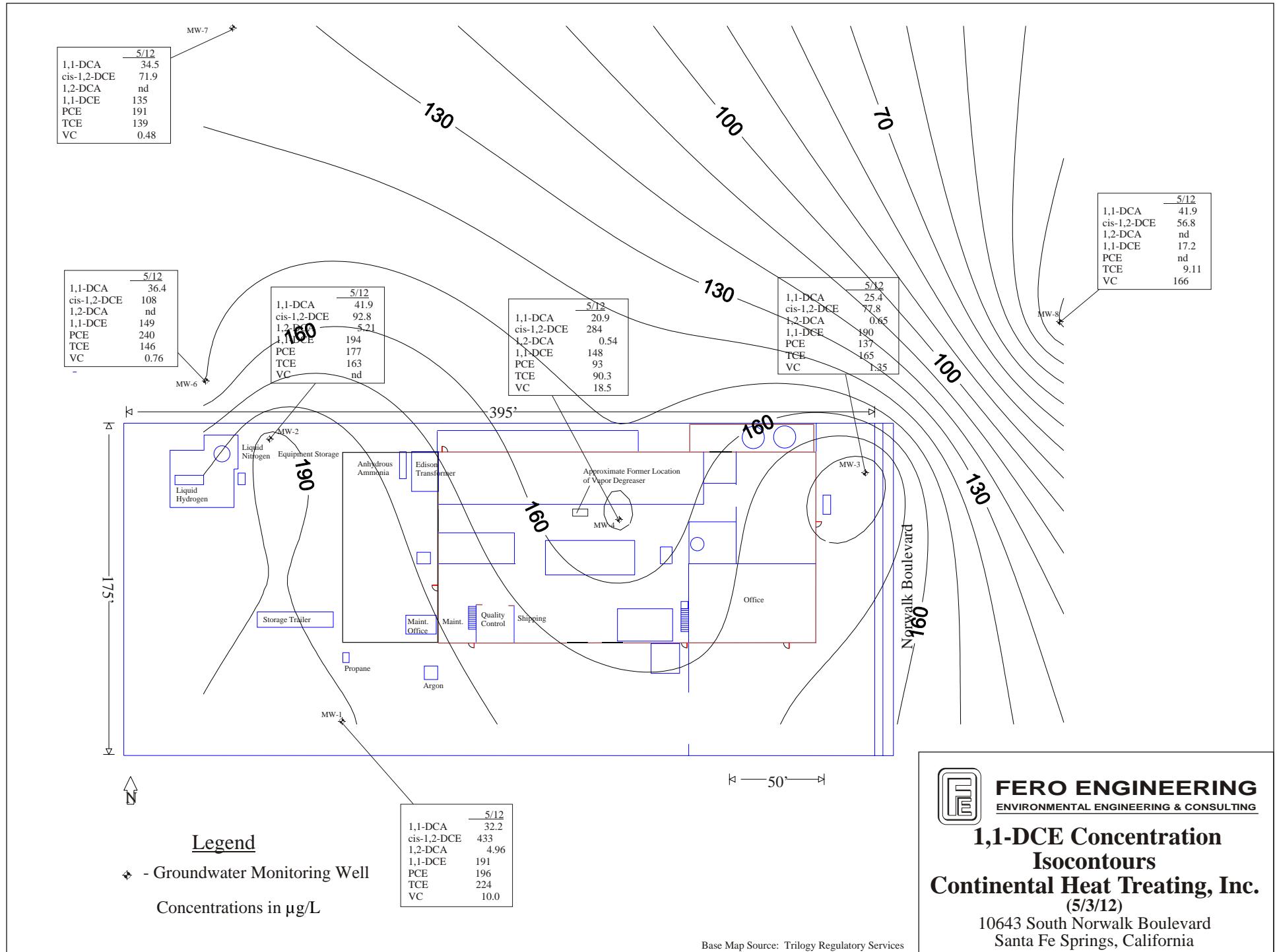
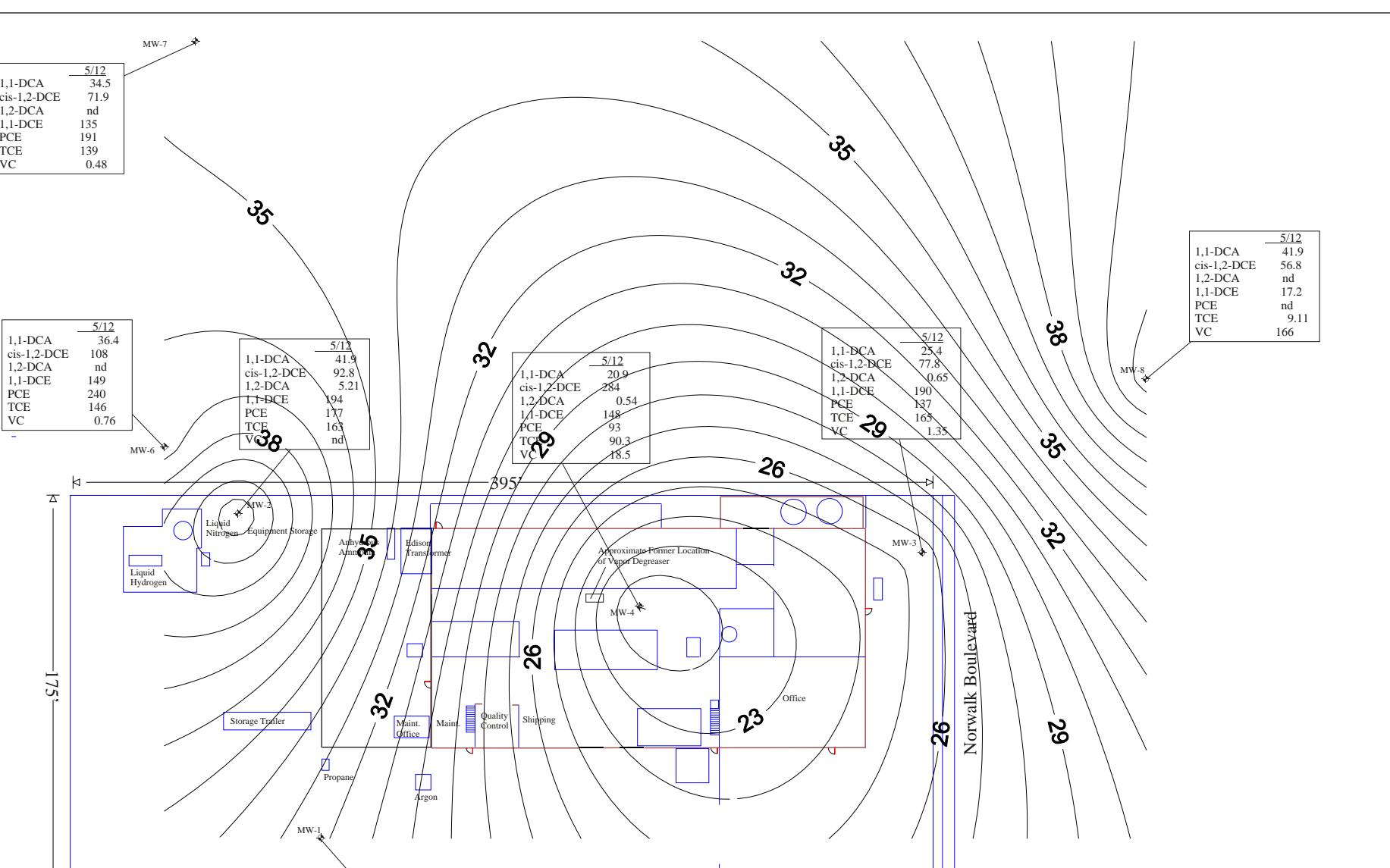


Figure 5

	5/12
1,1-DCA	34.5
cis-1,2-DCE	71.9
1,2-DCA	nd
1,1-DCE	135
PCE	191
TCE	139
VC	0.48

	5/12
1,1-DCA	36.4
cis-1,2-DCE	108
1,2-DCA	nd
1,1-DCE	149
PCE	240
TCE	146
VC	0.76



Legend

♦ - Groundwater Monitoring Well

Concentrations in $\mu\text{g/L}$

	5/12
1,1-DCA	32.2
cis-1,2-DCE	433
1,2-DCA	4.96
1,1-DCE	191
PCE	196
TCE	224
VC	10.0

Base Map Source: Trilogy Regulatory Services

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**1,1-DCA Concentration
Isocontours
Continental Heat Treating, Inc.
(5/3/12)**

10643 South Norwalk Boulevard
Santa Fe Springs, California

	5/12
1,1-DCA	34.5
cis-1,2-DCE	71.9
1,2-DCA	nd
1,1-DCE	135
PCE	191
TCE	139
VC	0.48

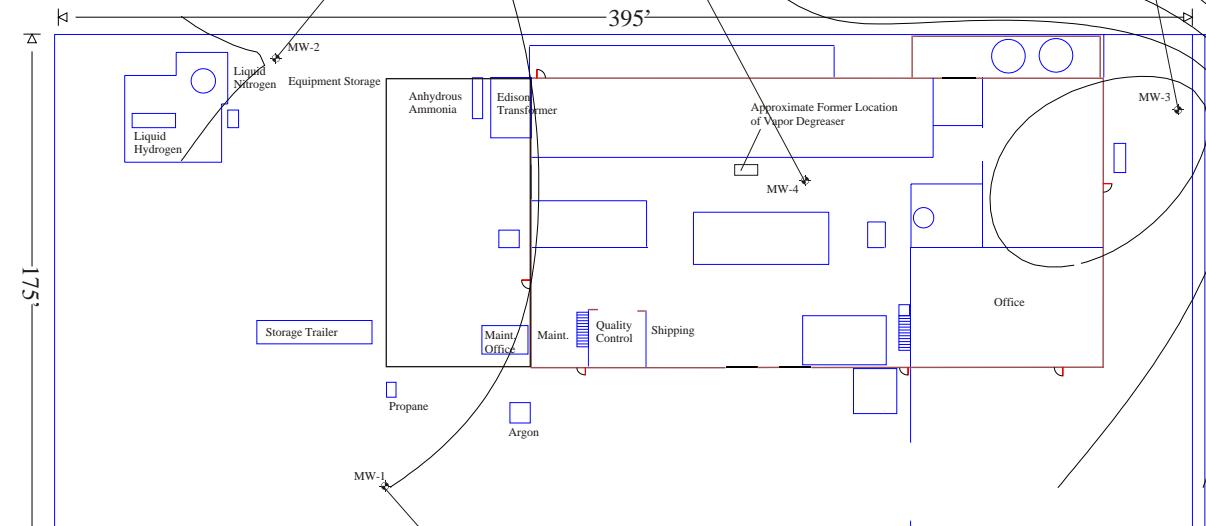
	5/12
1,1-DCA	36.4
cis-1,2-DCE	108
1,2-DCA	nd
1,1-DCE	149
PCE	240
TCE	146
VC	0.76

	5/12
1,1-DCA	41.9
cis-1,2-DCE	92.8
1,2-DCA	5.21
1,1-DCE	194
PCE	177
TCE	163
VC	nd

	5/12
1,1-DCA	20.9
cis-1,2-DCE	284
1,2-DCA	0.54
1,1-DCE	148
PCE	93
TCE	90.3
VC	18.5

	5/12
1,1-DCA	25.4
cis-1,2-DCE	77.8
1,2-DCA	0.65
1,1-DCE	190
PCE	137
TCE	165
VC	1.35

	5/12
1,1-DCA	41.9
cis-1,2-DCE	56.8
1,2-DCA	nd
1,1-DCE	17.2
PCE	nd
TCE	9.11
VC	166



Legend

♦ - Groundwater Monitoring Well

Concentrations in µg/L

	5/12
1,1-DCA	32.2
cis-1,2-DCE	433
1,2-DCA	4.96
1,1-DCE	191
PCE	196
TCE	224
VC	10.0

Base Map Source: Trilogy Regulatory Services

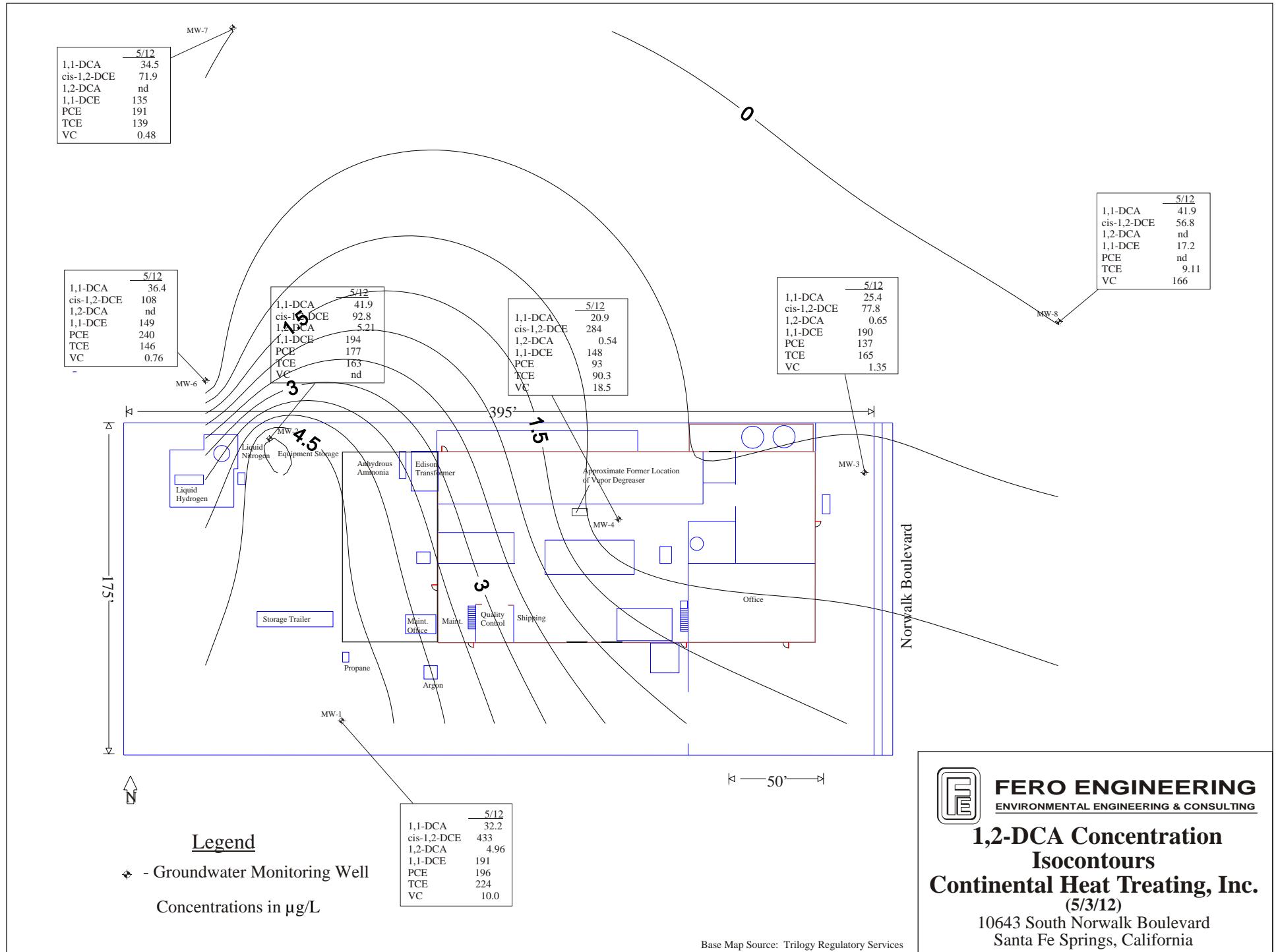


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**VC Concentration Isocontours
Continental Heat Treating, Inc.
(5/3/12)**

10643 South Norwalk Boulevard
Santa Fe Springs, California



ATTACHMENT A

Well Purge Report

Groundwater Well Monitoring Data

Site: Continental Heat Treating **Job Number:** 10-0758

Well I.D.: MW1 **Date:** 5/3/12

DTGW: 88.46' **Time Sampled:** 2:40 pm

Purge Data

<u>Volume (gal.)</u>	<u>Temp (F)</u>	<u>pH</u>	<u>Conductance (μmho)</u>
5	74.6	7.28	1309
10	73.8	7.21	1327
15	73.0	7.14	1352
20	73.3	7.11	1375
25	72.9	7.09	1389

Groundwater Well Monitoring Data

Site: Continental Heat Treating **Job Number:** 10-0758

Well I.D.: MW2 **Date:** 5/3/12

DTGW: 88.43' **Time Sampled:** 1:23 pm

Purge Data

<u>Volume (gal.)</u>	<u>Temp (F)</u>	<u>pH</u>	<u>Conductance (μmho)</u>
5	74.0	7.18	1378
10	73.9	7.11	1355
15	73.3	7.13	1375
20	73.1	7.09	1366
25	72.6	7.09	1364

Groundwater Well Monitoring Data

Site: Continental Heat Treating **Job Number:** 10-0758

Well I.D.: MW3 **Date:** 5/3/12

DTGW: 87.69' **Time Sampled:** 2:00 pm

Purge Data

<u>Volume (gal.)</u>	<u>Temp (F)</u>	<u>pH</u>	<u>Conductance (μmho)</u>
5	72.8	7.03	1435
10	73.5	7.01	1451
15	73.6	7.01	1458
20	73.7	7.02	1451
25	73.5	7.03	1456

Groundwater Well Monitoring Data

Site: Continental Heat Treating **Job Number:** 10-0758

Well I.D.: MW4 **Date:** 5/3/12

DTGW: 87.69' **Time Sampled:** 3:15 pm

Purge Data

<u>Volume (gal.)</u>	<u>Temp (F)</u>	<u>pH</u>	<u>Conductance (μmho)</u>
5	74.3	6.98	1181
10	74.3	6.92	1319
15	75.1	6.88	1790
20			
25			

ATTACHMENT B

Enviro-Chem Laboratory Report

Enviro - Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: May 9, 2012

Mr. John Petersen
Fero Environmental Engineering, Inc.
431 W. Lambert Road, Suite 305
Brea, CA 92821
Tel (714) 256-2737 Fax (714) 256-1505

Project: Continental Heat Treating / 12-758
Lab ID: 120503-38,39,40,41

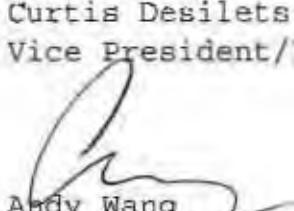
Dear Mr. Petersen:

The **analytical results** for the water samples, received by our laboratory on May 3, 2012, are attached. All samples were received chilled, intact, and accompanying chain of custody record.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,


Curtis Desilets
Vice President/Program Manager


Andy Wang
Laboratory Manager

LABORATORY REPORT FORM

LABORATORY NAME: ENVIRO-CHEM, INC.

ADDRESS: 1214 E. LEXINGTON AVE., POMONA, CA 91766

LABORATORY CERTIFICATION

(ELAP) No.: 1555 EXPIRATION DATE: 06/30/2013

LABORATORY DIRECTOR'S NAME: CURTIS DESILETS

LABORATORY'S DIRECTOR SIGNATURE: 

CLIENT: Fero Environmental Engineering, Inc.
431 W. Lambert Road, Suite 305
Brea, CA 92821
Tel (714) 256-2737 Fax (714) 256-1505

PROJECT: Continental Heat Treating / 12-758

ANALYTICAL METHODS: EPA 5030B/8260B (VOCs)

SAMPLING DATE(S): 05/03/12 DATE RECEIVED: 05/03/12

DATE REPORTED: 05/09/12 SAMPLE MATRIX: WATER

EXTRACTION METHOD: SEE ATTACHMENTS

EXTRACTION MATERIAL: PER THE METHODS

CHAIN OF CUSTODY RECEIVED: YES NO

---- SAMPLE HEADSPACE DESCRIPTION (%): 0 %

---- SAMPLE CONTAINER MATERIAL: 40 ML VCA VIALS (8)

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

LABORATORY REPORT FORM (COVER PAGE 2)

ORGANIC ANALYSES

OF SAMPLES

OF SAMPLES
SUBCONTRACTED

4

0

SAMPLE CONDITION: CHILLED, INTACT, % HEADSPACE: 0%

INORGANIC ANALYSES

OF SAMPLES

OF SAMPLES
SUBCONTRACTED

0

0

SAMPLE CONDITION:

MICROBIOLOGICAL ANALYSES

OF SAMPLES

OF SAMPLES
SUBCONTRACTED

0

0

SAMPLE CONDITION:

OTHER TYPES OF ANALYSES

OF SAMPLES

OF SAMPLES
SUBCONTRACTED

0

0

SAMPLE CONDITION:

LABORATORY REPORT

METHOD: EPA 8260B
PAGE: 1 OF 3 PAGES

MATRIX: WATER REPORTING UNIT: uG/L(PPB)
PROJECT: Continental Heat Treating / 12-758

CUSTOMER: Fero Environmental Engineering, Inc.
431 W. Lambert Road, Suite 305
Brea, CA 92821
Tel (714) 256-2737 Fax (714) 256-1505

DATE SAMPLED: 05/03/12

DATE RECEIVED: 05/03/12

<u>DATE ANALYZED</u>	05/04/12		
<u>DATE EXTRACTED</u>	05/04/12		
<u>LAB SAMPLE I.D.</u>	120503-38		
<u>CLIENT SAMPLE I.D.</u>	MW1		
<u>EXTRACTION SOLVENT</u>	HELIUM GAS/WATER		
<u>EXTRACTION METHOD</u>	EPA 5030B		
<u>DILUTION FACTOR (DF)</u>	NONE (15 MLs PURGED)		
COMPOUND	CRDL	MB	RESULT
ACETONE	2.0	ND	ND
BENZENE	0.5	ND	ND
BROMOBENZENE	0.5	ND	ND
BROMOCHLOROMETHANE	0.5	ND	ND
BROMODICHLOROMETHANE	0.5	ND	ND
BROMOFORM	0.5	ND	ND
BROMOMETHANE	0.5	ND	ND
2-BUTANONE (MEK)	2.0	ND	ND
N-BUTYLBENZENE	0.5	ND	ND
SEC-BUTYLBENZENE	0.5	ND	ND
TERPENYL BENZENE	0.5	ND	ND
CARBON DISULFIDE	2.0	ND	ND
CARBON TETRACHLORIDE	0.5	ND	ND
CHLOROBENZENE	0.5	ND	ND
CHLOROETHANE	0.5	ND	ND
CHLOROFORM	0.5	ND	6.15
CHLOROMETHANE	0.5	ND	ND
2-CHLOROTOLUENE	0.5	ND	ND
4-CHLOROTOLUENE	0.5	ND	ND
DIBROMOCHLOROMETHANE	0.5	ND	ND
1,2-DIBROMO-3-CHLOROPROPANE	0.5	ND	ND
1,2-DIBROMOETHANE	0.5	ND	ND
DIBROMOMETHANE	0.5	ND	ND
1,2-DICHLOROBENZENE	0.5	ND	ND
1,3-DICHLOROBENZENE	0.5	ND	ND
1,4-DICHLOROBENZENE	0.5	ND	ND

- CONTINUED -

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LABORATORY REPORT

METHOD: EPA 8260B MATRIX: WATER REPORTING UNIT: uG/L (PPB)
PAGE: 2 OF 3 PAGES PROJECT: Continental Heat Treating / 12-758

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<u>CLIENT SAMPLE I.D.</u>	MW1		
<u>EXTRACTION SOLVENT</u>	HELIUM GAS/WATER		
<u>EXTRACTION METHOD</u>	EPA 5030B		
<u>DILUTION FACTOR (DF)</u>	NONE (15 MLs PURGED)		
COMPOUND	CRDL	MB	RESULT
<u>1,1-DICHLORODIFLUOROMETHANE</u>	0.5	ND	ND
<u>1,1-DICHLOROETHANE</u>	0.5	ND	32.2
<u>CIS-1,2-DICHLOROETHENE</u>	0.5	ND	433 (DF=5)
<u>TRANS-1,2-DICHLOROETHENE</u>	0.5	ND	6.80
<u>1,2-DICHLOROPROPANE</u>	0.5	ND	ND
<u>1,2-DICHLOROETHANE</u>	0.5	ND	4.96
<u>1,1-DICHLOROETHENE</u>	0.5	ND	191 (DF=5)
<u>1,3-DICHLOROPROPANE</u>	0.5	ND	ND
<u>2,2-DICHLOROPROPANE</u>	0.5	ND	ND
<u>1,1-DICHLOROPROPENE</u>	0.5	ND	ND
<u>CIS-1,3-DICHLOROPROPENE</u>	0.5	ND	ND
<u>TRANS-1,3-DICHLOROPROPENE</u>	0.5	ND	ND
<u>ETHYLBENZENE</u>	0.5	ND	ND
<u>2-HEXANONE</u>	2.0	ND	ND
<u>HEXAChLOROBUTADIENE</u>	0.5	ND	ND
<u>IODOMETHANE</u>	0.5	ND	ND
<u>ISOPROPYLBENZENE</u>	0.5	ND	ND
<u>4-ISOPROPYLtolUENE</u>	0.5	ND	ND
<u>4-METHYL-2-PENTANONE (MIBK)</u>	2.0	ND	ND
<u>METHYL tert-BUTYL ETHER</u>	0.5	ND	ND
<u>METHYLENE CHLORIDE</u>	2.0	ND	ND
<u>NAPHTHALENE</u>	0.5	ND	ND
<u>N-PROPYLBENZENE</u>	0.5	ND	ND
<u>STYRENE</u>	0.5	ND	ND
<u>1,1,1,2-TETRACHLOROETHANE</u>	0.5	ND	ND

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LABORATORY REPORT

METHOD: EPA 8260B MATRIX: WATER REPORTING UNIT: uG/L (PPB)
PAGE: 3 OF 3 PAGES PROJECT: Continental Heat Treating / 12-758

CUSTOMER: Fero Environmental Engineering, Inc.
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<u>DATE EXTRACTED</u>	<u>05/04/12</u>		
<u>LAB SAMPLE I.D.</u>	<u>120503-38</u>		
<u>CLIENT SAMPLE I.D.</u>	<u>MW1</u>		
<u>EXTRACTION SOLVENT</u>	<u>HELIUM GAS/WATER</u>		
<u>EXTRACTION METHOD</u>	<u>EPA 5030B</u>		
<u>DILUTION FACTOR (DF)</u>	<u>NONE (15 MLs PURGED)</u>		
<u>COMPOUND</u>	<u>CRDL</u>	<u>MB</u>	<u>RESULT</u>
<u>1,1,2,2-TETRACHLOROETHANE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>
<u>TETRACHLOROETHENE (PCE)</u>	<u>0.5</u>	<u>ND</u>	<u>196 (DF=5)</u>
<u>TOLUENE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>
<u>1,2,3-TRICHLOROBENZENE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>
<u>1,2,4-TRICHLOROBENZENE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>
<u>1,1,1-TRICHLOROETHANE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>
<u>1,1,2 TRICHLOROETHANE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>
<u>TRICHLOROETHENE (TCE)</u>	<u>0.5</u>	<u>ND</u>	<u>224 (DF=5)</u>
<u>TRICHLOROFLUOROMETHANE</u>	<u>0.5</u>	<u>ND</u>	<u>13.6</u>
<u>1,2,3-TRICHLOROPROPANE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>
<u>1,2,4-TRIMETHYLBENZENE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>
<u>1,3,5-TRIMETHYLBENZENE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>
<u>VINYL CHLORIDE</u>	<u>0.5</u>	<u>ND</u>	<u>10.0</u>
<u>M,<u>o</u>-XYLENE</u>	<u>1.0</u>	<u>ND</u>	<u>ND</u>
<u>O-XYLENE</u>	<u>0.5</u>	<u>ND</u>	<u>ND</u>

uG/L = MICROGRAM PER LITER = PPB

CRDL = CONTRACT REQUIRED DETECTION LIMIT

MB = METHOD BLANK

ND = NON-DETECTED OR BELOW THE CRDL

DATA APPROVED BY: LL

LABORATORY REPORT

METHOD: EPA 8260B MATRIX: WATER REPORTING UNIT: uG/L (PPB)
PAGE: 1 OF 3 PAGES PROJECT: Continental Heat Treating / 12-758

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<u>DATE ANALYZED</u>	05/04/12		
<u>DATE EXTRACTED</u>	05/04/12		
<u>LAB SAMPLE I.D.</u>	120503-39		
<u>CLIENT SAMPLE I.D.</u>	MW2		
<u>EXTRACTION SOLVENT</u>	HELIUM GAS/WATER		
<u>EXTRACTION METHOD</u>	EPA 5030B		
<u>DILUTION FACTOR (DF)</u>	NONE (15 MLs PURGED)		
COMPOUND	CRDL	MB	RESULT
ACETONE	2.0	ND	ND
BENZENE	0.5	ND	ND
BROMOBENZENE	0.5	ND	ND
BROMOCHLOROMETHANE	0.5	ND	ND
BROMODICHLOROMETHANE	0.5	ND	ND
BROMOFORM	0.5	ND	ND
BROMOMETHANE	0.5	ND	ND
2-BUTANONE (MVK)	2.0	ND	ND
N-BUTYLBENZENE	0.5	ND	ND
SEC-BUTYLBENZENE	0.5	ND	ND
TERT-BUTYLBENZENE	0.5	ND	ND
CARBON DISULFIDE	2.0	ND	ND
CARBON TETRACHLORIDE	0.5	ND	ND
CHLOROBENZENE	0.5	ND	ND
CHLOROTHANE	0.5	ND	ND
CHLOROFORM	0.5	ND	8.72
CHLOROMETHANE	0.5	ND	ND
2-CHLOROTOLUENE	0.5	ND	ND
4-CHLOROTOLUENE	0.5	ND	ND
DIBROMOCHLOROMETHANE	0.5	ND	ND
1,2-DIBROMO-3-CHLOROPROPANE	0.5	ND	ND
1,2-DIBROMOETHANE	0.5	ND	ND
DIBROMOMETHANE	0.5	ND	ND
1,2-DICHLOROBENZENE	0.5	ND	ND
1,3-DICHLOROBENZENE	0.5	ND	ND
1,4-DICHLOROBENZENE	0.5	ND	ND

- CONTINUED -

LABORATORY REPORT

METHOD: EPA 8260B MATRIX: WATER REPORTING UNIT: uG/L(PFR)
PAGE: 2 OF 3 PAGES PROJECT: Continental Heat Treating / 12-758

CUSTOMER: Fero Environmental Engineering, Inc.
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DATE ANALYZED	05/04/12		
DATE EXTRACTED	05/04/12		
LAB SAMPLE I.D.	120503-39		
CLIENT SAMPLE I.D.	MW2		
EXTRACTION SOLVENT	HELUM GAS/WATER		
EXTRACTION METHOD	EPA 5030R		
DILUTION FACTOR (DF)	NONE (15 MLs PURGED)		
COMPOUND	CRDL	MB	RESULT
DICHLORODIFLUOROMETHANE	0.5	ND	ND
1,1-DICHLOROETHANE	0.5	ND	41.9
CIS-1,2-DICHLOROETHENE	0.5	ND	92.8
TRANS-1,2-DICHLOROETHENE	0.5	ND	0.54
1,2-DICHLOROPROPANE	0.5	ND	ND
1,2-DICHLOROETHANE	0.5	ND	5.21
1,1-DICHLOROETHER	0.5	ND	194 (DF=5)
1,3-DICHLOROPROPANE	0.5	ND	ND
2,2-DICHLOROPROPANE	0.5	ND	ND
1,1-DICHLOROPROPENE	0.5	ND	ND
CIS-1,3-DICHLOROPROPENE	0.5	ND	ND
TRANS-1,3-DICHLOROPROPENE	0.5	ND	ND
ETHYLBENZENE	0.5	ND	ND
2-HYDROXYBUTANE	2.0	ND	ND
HEXACHLOROBUTADIENE	0.5	ND	ND
1,1-DIMETHANE	0.5	ND	ND
ISOPROPYLBENZENE	0.5	ND	ND
4-ISOPROPYLTOLEUENE	0.5	ND	ND
4-METHYL-2-PENTANONE (MIBK)	2.0	ND	ND
METHYL tert-BUTYL ETHER	0.5	ND	ND
METHYLENEDICHLORIDE	2.0	ND	ND
NAPHTHALENE	0.5	ND	ND
N-PROPYLBENZENE	0.5	ND	ND
STYRENE	0.5	ND	ND
1,1,1,2-TETRACHLOROETHANE	0.5	ND	ND

- CONTINUED -

LABORATORY REPORT

METHOD: EPA 8260B MATRIX: WATER REPORTING UNIT: uG/L (PPB)
PAGE: 3 OF 3 PAGES PROJECT: Continental Heat Treating / 12-758

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<u>DATE EXTRACTED</u>	05/04/12		
<u>LAB SAMPLE I.D.</u>	120503-39		
<u>CLIENT SAMPLE I.D.</u>	MW2		
<u>EXTRACTION SOLVENT</u>	HELIUM GAS/WATER		
<u>EXTRACTION METHOD</u>	EPA 5030B		
<u>DILUTION FACTOR (DF)</u>	NONE (15 MLs PURGED)		
COMPOUND	CRDL	MB	RESULT
<u>1,1,2,2-TETRACHLOROETHANE</u>	0.5	ND	ND
<u>TETRACHLOROETHENE (PCE)</u>	0.5	ND	177 (DF=5)
<u>TOLUENE</u>	0.5	ND	ND
<u>1,2,3-TRICHLOROBENZENE</u>	0.5	ND	ND
<u>1,2,4-TRICHLOROBENZENE</u>	0.5	ND	ND
<u>1,1,1-TRICHLOROETHANE</u>	0.5	ND	1.14
<u>1,1,2-TRICHLOROETHANE</u>	0.5	ND	ND
<u>TRICHLOROETHENE (TCE)</u>	0.5	ND	163
<u>TRICHLOROFLUOROMETHANE</u>	0.5	ND	24.2
<u>1,2,3-TRICHLOROPROPANE</u>	0.5	ND	ND
<u>1,2,4-TRIMETHYLBENZENE</u>	0.5	ND	ND
<u>1,3,5-TRIMETHYLBENZENE</u>	0.5	ND	ND
<u>VINYL CHLORIDE</u>	0.5	ND	ND
<u>M, P-XYLENE</u>	1.0	ND	ND
<u>O-XYLENE</u>	0.5	ND	ND

uG/L = MICROGRAM PER LITER = PPB

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MB = METHOD BLANK

ND = NON DETECTED OR BELOW THE CRDL

DATA APPROVED BY: [Signature]

LABORATORY REPORT

METHOD: EPA 8260B
PAGE: 1 OF 3 PAGES

MATRIX: WATER REPORTING UNIT: µG/L (PPB)
PROJECT: Continental Heat Treating / 12-758

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DATE SAMPLED: 05/03/12

DATE RECEIVED: 05/03/12

DATE ANALYZED	05/04/12		
DATE EXTRACTED	05/04/12		
LAB SAMPLE I.D.	120503-40		
CLIENT SAMPLE I.D.	MW3		
EXTRACTION SOLVENT	HELIUM GAS/WATER		
EXTRACTION METHOD	EPA 5030B		
DILUTION FACTOR (DF)	NONE (15 MLs PURGED)		
COMPOUND	CRDL	MB	RESULT
ACETONE	2.0	ND	ND
BENZENE	0.5	ND	ND
BROMOBENZENE	0.5	ND	ND
BROMOCHLOROMETHANE	0.5	ND	ND
BROMODICHLOROMETHANE	0.5	ND	ND
BROMOFORM	0.5	ND	ND
BROMOMETHANE	0.5	ND	ND
2-BUTANONE (MEK)	2.0	ND	ND
N-BUTYLBENZENE	0.5	ND	ND
SEC-BUTYLBENZENE	0.5	ND	ND
TERT-BUTYLBENZENE	0.5	ND	ND
CARBON DISULFIDE	2.0	ND	ND
CARBON TETRACHLORIDE	0.5	ND	ND
CHLOROBENZENE	0.5	ND	ND
CHLOROTHANE	0.5	ND	ND
CHLOROFORM	0.5	ND	5.81
CHLOROMETHANE	0.5	ND	ND
2-CHLOROTOLUENE	0.5	ND	ND
4-CHLOROTOLUENE	0.5	ND	ND
DIBROMOCHLOROMETHANE	0.5	ND	ND
1,2-DIBROMO-3-CHLOROPROPANE	0.5	ND	ND
1,2-DIBROMOETHANE	0.5	ND	ND
DIBROMOMETHANE	0.5	ND	ND
1,2-DICHLOROBENZENE	0.5	ND	ND
1,3-DICHLOROBENZENE	0.5	ND	ND
1,4-DICHLOROBENZENE	0.5	ND	ND

- CONTINUED -

LABORATORY REPORT

METHOD: EPA 8260B MATRIX: WATER REPORTING UNIT: uG/L (PPB)
PAGE: 2 OF 3 PAGES PROJECT: Continental Heat Treating / 12-758

CUSTOMER: Faro Environmental Engineering, Inc.
431 W. Lambert Road, Suite 305
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<u>LAB SAMPLE I.D.</u>	<u>120503-40</u>		
<u>CLIENT SAMPLE I.D.</u>	<u>MW3</u>		
<u>EXTRACTION SOLVENT</u>	<u>HONLIUM GAS/WATER</u>		
<u>EXTRACTION METHOD</u>	<u>EPA 5030B</u>		
<u>DILUTION FACTOR (D_f)</u>	<u>NONE (15 MLs PURGED)</u>		
<u>COMPOUND</u>	<u>CRDL</u>	<u>MB</u>	<u>RESULT</u>
DICHLORODIFLUOROMETHANE	0.5	ND	ND
1,1-DICHLOROETHANE	0.5	ND	25.4
CIS-1,2-DICHLOROETHENE	0.5	ND	77.9
TRANS-1,2-DICHLOROETHENE	0.5	ND	15.7
1,2-DICHLOROPROPANE	0.5	ND	ND
1,2-DICHLOROETHANE	0.5	ND	0.65
1,1-DICHLOROETHENE	0.5	ND	190
1,3-DICHLOROPROPANE	0.5	ND	ND
2,2-DICHLOROPROPANE	0.5	ND	ND
1,1-DICHLOROPROPENE	0.5	ND	ND
CIS-1,3-DICHLOROPROPENE	0.5	ND	ND
TRANS-1,3-DICHLOROPROPENE	0.5	ND	ND
ETHYLBENZENE	0.5	ND	ND
2-HEXANONE	2.0	ND	ND
HEXAChLOROBUTADIENE	0.5	ND	ND
IODOMETHANE	0.5	ND	ND
ISOPROPYLBENZENE	0.5	ND	ND
4-ISOPROPYLtolUENE	0.5	ND	ND
4-METHYL-2-PENTANONE (MIBK)	2.0	ND	ND
METHYL tert-BUTYL ETHER	0.5	ND	ND
METHYLbNE CHLORIDE	2.0	ND	ND
NAPHTHALENE	0.5	ND	ND
N-PROPYLBENZENE	0.5	ND	ND
STYRENE	0.5	ND	ND
1,1,1,2-TETRACHLOROETHANE	0.5	ND	ND

- CONTINUED -

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METHOD: EPA 8260B MATRIX: WATER REPORTING UNIT: uG/L (PPB)
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CLIENT SAMPLE I.D.	MW3		
EXTRACTION SOLVENT	HELIUM GAS/WATER		
EXTRACTION METHOD	EPA 503CB		
DILUTION FACTOR (DF)	NONE (15 MLs PURGED)		
COMPOUND	CRDL	MB	RESULT
1,1,2,2-TETRACHLOROETHANE	0.5	ND	ND
TETRACHLOROETHENE (PCE)	0.5	ND	137
TOLUENE	0.5	ND	ND
1,2,3-TRICHLOROBENZENE	0.5	ND	ND
1,2,4-TRICHLOROBENZENE	0.5	ND	ND
1,1,1-TRICHLOROETHANE	0.5	ND	ND
1,1,2-TRICHLOROETHANE	0.5	ND	ND
TRICHLOROETHENE (TCE)	0.5	ND	165
TRICHLOROFLUOROMETHANE	0.5	ND	13.3
1,2,3-TRICHLOROPROPANE	0.5	ND	ND
1,2,4-TRIMETHYLBENZENE	0.5	ND	ND
1,3,5-TRIMETHYLBENZENE	0.5	ND	ND
VINYL CHLORIDE	0.5	ND	1.35
M,P-XYLENE	1.0	ND	ND
O-XYLENE	0.5	ND	ND

uG/L = MICROGRAM PER LITER = PPB

CRDL = CONTRACT REQUIRED DETECTION LIMIT

MB = METHOD BLANK

ND = NON-DETECTED OR BELOW THE CRDL

DATA APPROVED BY: LL

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

METHOD: EPA 8260B
PAGE: 1 OF 3 PAGES

MATRIX: WATER REPORTING UNIT: uG/L (PPB)
PROJECT: Continental Heat Treating / 12-758

CUSTOMER: Fero Environmental Engineering, Inc.
431 W. Lambert Road, Suite 305
Brea, CA 92821
Tel (714) 256-2737 Fax (714) 256-1505

DATE SAMPLED: 05/03/12

DATE RECEIVED: 05/03/12

<u>DATE ANALYZED</u>	05/04/12		
<u>DATE EXTRACTED</u>	05/04/12		
<u>LAB SAMPLE I.D.</u>	120503-41		
<u>CLIENT SAMPLE I.D.</u>	MW4		
<u>EXTRACTION SOLVENT</u>	HELIUM GAS/WATER		
<u>EXTRACTION METHOD</u>	EPA 5030B		
<u>DILUTION FACTOR (DF)</u>	NONE (15 MLs PURGED)		
<u>COMPOUND</u>	<u>CRDL</u>	<u>ME</u>	<u>RESULT</u>
ACETONE	2.0	ND	ND
BENZENE	0.5	ND	ND
BROMOBENZENE	0.5	ND	ND
BROMOCHLOROMETHANE	0.5	ND	ND
BROMODICHLOROMETHANE	0.5	ND	ND
BROMOFORM	0.5	ND	ND
BROMOMETHANE	0.5	ND	ND
2-BUTANONE (MEK)	2.0	ND	ND
N-BUTYLBENZENE	0.5	ND	ND
SIM-BUTYLBENZENE	0.5	ND	2.18
TERT-BUTYLBENZENE	0.5	ND	ND
CARBON DISULFIDE	2.0	ND	ND
CARBON TETRACHLORIDE	0.5	ND	ND
CHLOROBENZENE	0.5	ND	ND
CHLOROETHANE	0.5	ND	ND
CHLOROFORM	0.5	ND	2.29
CHLOROMETHANE	0.5	ND	ND
2-CHLOROTOLUENE	0.5	ND	ND
4-CHLOROTOLUENE	0.5	ND	ND
DIBROMOCHLOROMETHANE	0.5	ND	ND
1,2-DIBROMO-3-CHLOROPROPANE	0.5	ND	ND
1,2-DIBROMOETHANE	0.5	ND	ND
DIBROMOMETHANE	0.5	ND	ND
1,2-DICHLOROBENZENE	0.5	ND	ND
1,3-DICHLOROBENZENE	0.5	ND	ND
1,4-DICHLOROBENZENE	0.5	ND	ND

- CONTINUED -

LABORATORY REPORT

METHOD: EPA 8260B MATRIX: WATER REPORTING UNIT: uG/L (PPB)
PAGE: 2 OF 3 PAGES PROJECT: Continental Heat Treating / 12-758

CUSTOMER: Fero Environmental Engineering, Inc.
431 W. Lambert Road, Suite 305
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Tel (714) 256-2737 Fax (714) 256-1505

DATE SAMPLED: 05/03/12

DATE RECEIVED: 05/03/12

DATE ANALYZED	05/04/12		
DATE EXTRACTED	05/04/12		
LAB SAMPLE I.D.	120503-41		
CLIENT SAMPLE I.D.	MW4		
EXTRACTION SOLVENT	HELIUM GAS/WATER		
EXTRACTION METHOD	EPA 5030B		
DILUTION FACTOR (DF)	NONE (15 mL PURGED)		
COMPOUND	CRDL	MB	RESULT
DICHLORODIFLUOROMETHANE	0.5	ND	ND
1,1-DICHLOROETHANE	0.5	ND	20.9
CIS-1,2-DICHLOROETHENE	0.5	ND	284 (DF=5)
TRANS-1,2-DICHLOROETHENE	0.5	ND	9.63
1,2-DICHLOROPROPANE	0.5	ND	ND
1,2-DICHLOROETHANE	0.5	ND	0.54
1,1-DICHLOROETHINE	0.5	ND	148
1,3-DICHLOROPROPANE	0.5	ND	ND
2,2-DICHLOROPROPANE	0.5	ND	ND
1,1-DICHLOROPROPENE	0.5	ND	ND
CIS-1,3-DICHLOROPROPENE	0.5	ND	ND
TRANS-1,3-DICHLOROPROPENE	0.5	ND	ND
ETHYLBENZENE	0.5	ND	1.41
2-HEXANONE	2.0	ND	ND
HEXAChLOROBUTADIENE	0.5	ND	ND
IODOMETHANE	0.5	ND	ND
ISOPROPYLBENZENE	0.5	ND	4.14
4-ISOPROPYLOLUENE	0.5	ND	ND
4-METHYL-2-PENTANONE (MIBK)	2.0	ND	ND
METHYL tert-BUTYL ETHER	0.5	ND	ND
METHYLENE CHLORIDE	2.0	ND	ND
NAPHTHALENE	0.5	ND	ND
N-PROPYLBENZENE	0.5	ND	3.17
STYRENE	0.5	ND	ND
1,1,1,2-TETRACHLOROETHANE	0.5	ND	ND

- CONTINUED -

LABORATORY REPORT

METHOD: EPA 8260B MATRIX: WATER REPORTING UNIT: uG/L(PPB)
PAGE: 3 OF 3 PAGES PROJECT: Continental Heat Treating / 12-758

CUSTOMER: Fero Environmental Engineering, Inc.
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Tel (714) 256-2737 Fax (714) 256-1505

DATE SAMPLED: 05/03/12

DATE RECEIVED: 05/03/12

<u>DATE ANALYZED</u>	05/04/12		
<u>DATE EXTRACTED</u>	05/04/12		
<u>LAB SAMPLE I.D.</u>	120503-41		
<u>CLIENT SAMPLE I.D.</u>	MW4		
<u>EXTRACTION SOLVENT</u>	HELIUM GAS/WATER		
<u>EXTRACTION METHOD</u>	EPA 5030B		
<u>DILUTION FACTOR (DF)</u>	NONE (15 MLs PURGED)		
<u>COMPOUND</u>	<u>CRDL</u>	<u>MB</u>	<u>RESULT</u>
<u>1,1,2,2-TETRACHLOROETHANE</u>	0.5	ND	ND
<u>TETRACHLOROETHENE (PCE)</u>	0.5	ND	93.0
<u>TOLUENE</u>	0.5	ND	ND
<u>1,2,3-TRICHLOROBENZENE</u>	0.5	ND	ND
<u>1,2,4-TRICHLOROBENZENE</u>	0.5	ND	ND
<u>1,1,1-TRICHLOROETHANE</u>	0.5	ND	ND
<u>1,1,2-TRICHLOROETHANE</u>	0.5	ND	ND
<u>TRICHLOROETHENE (TCE)</u>	0.5	ND	90.3
<u>TRICHLOROFLUOROMETHANE</u>	0.5	ND	3.51
<u>1,2,3-TRICHLOROPROPANE</u>	0.5	ND	ND
<u>1,2,4-TRIMETHYLBENZENE</u>	0.5	ND	ND
<u>1,3,5-TRIMETHYLBENZENE</u>	0.5	ND	ND
<u>VINYL CHLORIDE</u>	0.5	ND	18.5
<u>M, P-XYLENE</u>	1.0	ND	ND
<u>O-XYLENE</u>	0.5	ND	ND

uG/L = MICROGRAM PER LITTER = PPB

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MB = METHOD BLANK

ND = NON-DETECTED OR BELOW THE CRDL

DATA APPROVED BY: 

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QA/QC REPORT

METHOD: EPA 8260B
PAGE: 1 OF 8 PAGES

MATRIX:WATER REPORTING UNIT: uG/L (PPB)
PROJECT: Continental Heat Treating / 12-758

CUSTOMER: Fero Environmental Engineering, Inc.
431 W. Lambert Road, Suite 305
Brea, CA 92821
Tel (714) 256-2737 Fax (714) 256-1505

DATE SAMPLED: 05/03/12

DATE RECEIVED: 05/03/12

DATE ANALYZED

05/04/12

DATE EXTRACTED

05/04/12

SEE ATTACHED PAGES (7)

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766

Tel (909)590-5905

Fax (909)590-5907

8260B QA/QC Report

(1)

Date Analyzed: 5/4-5/2012
 Method: 524BW147
 Machine: B

Matrix: Water
 Unit: ug/L (PPB)

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 120504-LCS1/2

Analyte	S.R.	spk conc	MS	%RC	MSD	%RC	%RPD	ACP %RC	ACP RPD
Trichloroethene	0.00	25.0	25.1	100%	25.1	100%	0%	80-120	0-20
Toluene	0.00	25.0	30.9	124%	28.8	115%	7%	80-120	0-20
Ethylbenzene	0.00	25.0	26.4	106%	25.9	103%	2%	80-120	0-20
Cis-1,2-Dichloroethene	0.00	25.0	25.7	103%	29.8	119%	15%	80-120	0-20
Tetrachloroethene	0.00	25.0	23.4	94%	24.4	98%	4%	80-120	0-20

Lab Control Spike (LCS)

Analyte	spk conc	LCS	%RC	ACP %RC
1,1,1-TCA	25.0	27.1	108%	80-120
Tetrachloroethene	25.0	22.9	91%	80-120
Benzene	25.0	27.0	108%	80-120
Toluene	25.0	29.2	117%	80-120
Ethylbenzene	25.0	26.7	107%	80-120
Chloroform	25.0	28.3	113%	80-120

Calibration date: 11/11/2011

Continuing Calibration Check (CCC)

Analyte	AvgRF	CCRF	%Dev	%RSD
1,1,1-TCA	0.749	0.774	3.34	10.23
Trichloroethene	0.357	0.364	1.96	12.24
Tetrachloroethene	0.996	1.001	0.50	12.76
Toluene	1.322	1.369	3.56	10.80
Chloroform	0.808	0.792	1.98	6.86
Cis-1,2-Dichloroethene	1.064	1.080	1.50	8.89

Surrogate Recovery	spk conc	ACP%	MB %RC	%RC	%RC	%RC	%RC	%RC	%RC
Sample I.D.			M-BLK	120503-38	120503-39	120503-40	120503-41		
Dibromofluoromethane	25.0	75-125	112%	104%	105%	104%	103%		
Toluene-d8	25.0	75-125	97%	101%	99%	102%	105%		
4-Bromofluorobenzene	25.0	75-125	74%	76%	72%	79%	74%		

Surrogate Recovery	spk conc	ACP%	%RC						
Sample I.D.									
Dibromofluoromethane	25.0	75-125							
Toluene-d8	25.0	75-125							
4-Bromofluorobenzene	25.0	75-125							

Surrogate Recovery	spk conc	ACP%	%RC						
Sample I.D.									
Dibromofluoromethane	25.0	75-125							
Toluene-d8	25.0	75-125							
4-Bromofluorobenzene	25.0	75-125							

*= Surrogate fail due to matrix interference; LCS, MS, MSD are in control therefore the analysis is in control.

S.R. = Sample Results

%RC = Percent Recovery

spk conc = Spike Concentration

ACP %RC = Accepted Percent Recovery

MS = Matrix Spike

MSD = Matrix Spike Duplicate

Analyzed/Reviewed By:

Final Reviewer:

GC Sequence #	Standard Name:	Solvent	Stock Standard	Calculation STD V X STD Conc. / Total Volume = Final Conc.	Ref. / Page	Prep. Date	Exp. Date	Initial
2518	8260B In/Surr	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date: —	Name: Source: Cat #: Lot #: Exp. Date:	detail in Logbook A3. p. 31 $\frac{1\text{mL} \times 50\text{ppm}}{10.0\text{mL}} = 5\text{ ppm}$	-	9/15/2011	8/31/2012	sch
2519	8260B BFB	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date: —	Name: 8260B In/Surr Source: GC-2519 Cat #: Lot #: Exp. Date:	1mL $\frac{50\text{ppm}}{10.0\text{mL}} = 5\text{ ppm}$	-	9/15/2011	8/31/2012	sch
2520	8260B Gas	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date: 5/13/13	Name: Gas std Source: Ultra Cat #: DWM-544 Lot #: GC-1486 Exp. Date: 5/13/13	$\frac{12.5\text{mL} \times 5000\text{ppm}}{0.5\text{mL}} = 50,000\text{ppm}$	(Am)	9/19/2011	9/25/2011	sch
2521	8260B Gas	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date: —	Name: Gas std Source: Ultra Cat #: DWM-544 Lot #: GC-1486 Exp. Date: 5/13/13	$\frac{12.5\text{mL} \times 5000\text{ppm}}{0.5\text{mL}} = 50,000\text{ppm}$	(Am)	9/26/2011	9/29/2011	Am
2522	8260B Gas	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date: 5/13/13	Name: Gas std Source: Ultra Cat #: DWM-544 Lot #: GC-1486 Exp. Date: 5/13/13	$\frac{12.5\text{mL} \times 5000\text{ppm}}{0.5\text{mL}} = 50,000\text{ppm}$	(Am)	9/30/2011	10/1/2011	Am
2523	8260B Gas	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date: —	Name: Gas std Source: Ultra Cat #: DWM-544 Lot #: GC-1486 Exp. Date: 5/13/13	$\frac{12.5\text{mL} \times 5000\text{ppm}}{0.5\text{mL}} = 50,000\text{ppm}$	(Am)	10/1/2011	10/6/2011	M
2524	8260B Gas	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date: —	Name: Gas std Source: Ultra Cat #: DWM-544 Lot #: GC-1486 Exp. Date: 5/13/13	$\frac{12.5\text{mL} \times 5000\text{ppm}}{0.5\text{mL}} = 50,000\text{ppm}$	(Am)	10/17/2011	10/23/2011	M

GC quence #	Standard Name:	Solvent	Stock Standard	Calculation $\frac{\text{STD V} \times \text{STD Conc.}}{\text{Total Volume}} = \text{Final Conc.}$	Ref./ Page	Prep. Date	Exp. Date	Initial
2629	Diesel CCV	Name: CS ₂ Source: Fisher Cat #: C573-110 Lot #: 110418 Exp. Date:	Name: Diesel std Source: Restek Cat #: 31258 Lot #: A069478 Exp. Date: 09/2016	$\frac{50.00\text{ppm} \times 0.4\text{mL}}{10\text{mL}} = 20.0\text{ppm}$		5/1/12	5/1/13	ZC
2630	8260B 1g/SURV	Name: MEON Source: Fisher Cat #: A452-1 Lot #: 110412 Exp. Date:	Name: Source: Cat #: Lot #: Exp. Date:	Check Detail in x Logbook A2-P53		5/2/12	8/20/12	PW
631	8260B Gas	Name: Meon Source: Fisher Cat #: A452-1 Lot #: 110412 Exp. Date: 9/30/14	Name: Gas std Source: Ultra Cat #: DWM-544 Lot #: GC-1406 Exp. Date: 9/30/14	$\frac{12.5\text{uL} \times 2000\text{ppm}}{0.50\text{mL}} = 50.0\text{ppm}$		5/1/12	5/14/12	PW
		Name: Source: Cat #: Lot #: Exp. Date:	Name: Source: Cat #: Lot #: Exp. Date:	X				
		Name: Source: Cat #: Lot #: Exp. Date:	Name: Source: Cat #: Lot #: Exp. Date:	X				
		Name: Source: Cat #: Lot #: Exp. Date:	Name: Source: Cat #: Lot #: Exp. Date:	X				
		Name: Source: Cat #: Lot #: Exp. Date:	Name: Source: Cat #: Lot #: Exp. Date:	X				

GC Sequence #	Standard Name:	Solvent	Stock Standard	Calculation STD V X STD Conc. Total Volume = Final Conc.	Ref./Page	Prep. Date	Exp. Date	Initi
2608	Acrolein	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date:	Name: Acrolein Source: Aldrich Cat #: 110221 Lot #: 15175PB Exp. Date:	2649uL $\frac{0.839 \times 0.09}{10.0mL}$ = 2000 ppm (May/m)	-	4/9/12	4/18/13	PW
2609	8260B CCV	Name: Methanol Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date:	Name: Source: Cat #: Lot #: Exp. Date:	Check Detail in x Logbook A3 P46	-	4/9/12	4/28/13	PW
2610	8260B LCS	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date:	Name: Source: Cat #: Lot #: Exp. Date:	Check Detail in x Logbook A3 P47	-	4/9/12	10/20/12	PW
2611	8260B IS/SURR	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date:	Name: Source: Cat #: Lot #: Exp. Date:	Check Detail in x Logbook A3-48	-	4/12/12	8/3/12	PW
2612	8260B Gas	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date:	Name: Gas Std Source: Ultra Cat #: DWM-544 Lot #: GC-1486 Exp. Date: 9/30/14	12.5uL $\frac{x 2000 \text{ ppm}}{0.50mL}$ = 50.0 ppm	-	4/16/12	4/23/12	P
2613	8260B Gas	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date:	Name: Gas Std Source: Ultra Cat #: DWM-544 Lot #: GC-1486 Exp. Date: 9/30/14	12.5uL $\frac{x 2000 \text{ ppm}}{0.50mL}$ = 50.0 ppm	-	4/23/12	4/30/12	P
2614	8260B Gas	Name: MeOH Source: Fisher Cat #: A453-1 Lot #: 110412 Exp. Date:	Name: Gas Std Source: Ultra Cat #: DWM-544 Lot #: GC-1486 Exp. Date: 9/30/14	12.5uL $\frac{x 2000 \text{ ppm}}{0.50mL}$ = 50.0 ppm	-	4/29/12	5/7/12	P



Standard Name: 87100 1S|SUVR

Analyst: Pw

GC #: 2630

Preparation Date: 5/2/2012

Expiration Date: 8/31/12

Compound Name	Source	Catalog #	Lot #	Exp date	Calculation STD V x STD Conc Total Volume → Final Conc	Initial
Internal standard	Ultra	STM-341N-1	CF-2990	8/31/12	$\frac{125\text{uL} \times 2000\text{ppm}}{5.0\text{mL}} = 50.0 \text{ ppm}$	Pw
Surrogate standard	Ultra	STM-330N	CH-0721	4/30/14	$\frac{125\text{uL} \times 2000\text{ppm}}{5.0\text{mL}} = 50.0 \text{ ppm}$	Pw
					X =	
					X =	
					X =	
					X =	
					X =	
					X =	
					X =	

Total Standard Volume: 0.250mL

Added Solvent Volume: 4.75mL

Final Volume: 5.0mL

Standard Name: S760 B CCVAnalyst: PWGC #: 2609Preparation Date: 4/9/2012Expiration Date: 2/28/13

Compound Name	Source	Catalog #	Lot #	Exp date	Calculation STD V x STD Conc _____ Total Volume =Final Conc	Initial
Acrolein	GC 2608			4/8/2013	$250\text{uL} \times 200\text{ppm} = 50.0\text{ppm}$ 10.0mL	PW
VOC Mixture	Ultra	DWM-589N	CG-0088	2/28/13	$250\text{uL} \times 200\text{ppm} = 50.0\text{ppm}$ 10.0mL	PW
VOC Mixture	Ultra	DWM-592	CG-2384	8/31/13	$250\text{uL} \times 200\text{ppm} = 50.0\text{ppm}$ 10.0mL	PW
					X =	
					X =	
					X =	
					X =	
					X =	
					X =	
					X =	
					X =	

Total Standard Volume: 0.750mLAdded Solvent Volume: 9.250mLFinal Volume: 10.0 mL

Page 46/100

(9)

Standard Name: 8760 LCS

Analyst: PW

GC #: 2610

Preparation Date: 4/9/2012

Expiration Date: 10/2012

Compound Name	Source	Catalog #	Lot #	Exp date	Calculation STD V x STD Conc _____ Total Volume _____ Final Conc _____ Initial
Acrolein	E1C2608			4/8/13	$\frac{250\text{uL} \times 2000\text{ppm}}{10.0\text{mL}} = 50.0\text{ppm}$ PW
VOC Mixture	Certiliant	ERS-07A	ER1016701	10/2012	$\frac{250\text{uL} \times 2000\text{ppm}}{10.0\text{mL}} = 50.0\text{ppm}$ PW
VOC Mixture	Ultra	DWM-59-2	CA-2284	8/31/13	$\frac{250\text{uL} \times 2000\text{ppm}}{10.0\text{mL}} = 50.0\text{ppm}$ PW
					X =
					X =
					X =
					X =
					X =
					X =
					X =
					X =
					X =

Total Standard Volume: 0.750mL

Added Solvent Volume: 9.250mL

Final Volume: 10.0mL

Enviro-Chem, Inc. Laboratories

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Pomona, CA 91766
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CA-DHS ELAP CERTIFICATE #1555

Turnaround Time

- Same Day
- 24 Hours
- 48 Hours
- 72 Hours
- 1 Week (Standard)
- Other:

Misc.

LA PUEB
Format

Company Name:

Ferro Eng.

Address:

431 W. Larchmont Rd 305

City/State/Zip

Al Boen, cat 42821

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Project Contact:

John Pefiser

10

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Sampler's Signature


John P. Doherty

Project Name/IP:

(Z-758)

Continental fleet treated

Instructions for Sample Storage After Analysis:

Dispersion

CHAIN OF CUSTODY RECORD